



INFECTION CONTROL TRAINING

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BRIEFING



Outlines the requirements of the standard and informs dental healthcare workers of the risks of occupational exposure to bloodborne pathogens and how to reduce these risks.

OSHA STANDARD



- Protects employees
 - Dentists
 - Hygienists
 - Lab technicians
 - Assistants
- Any individual who may have occupational exposure to bloodborne pathogens.

OCCUPATIONAL EXPOSURE

- Reasonably anticipated skin, eye, mucous membrane, or puncture wound contact with blood or other potentially infectious materials that may result from the performance of the dental health care worker's duties

EPIDEMIOLOGY/DISEASES



- Epidemiology
 - Incidence, distribution, and control of disease
- Blood borne pathogens
 - Agents found in blood of infected individuals which can cause diseases (virus, bacteria)
 - Hepatitis B virus (HBV)
 - Human immunodeficiency virus (HIV)

Potentially Infectious Materials



- Human body fluids
- Saliva
- Any body fluid visibly contaminated with blood

HBV/HIV

- Dental health care workers exposed to blood/saliva are at risk of contracting these viral diseases
- HIV
 - 1 million people in U.S. infected
 - 100% ultimately die of illness
- HBV
 - 200,000 new cases per year in U.S.
 - Death rate 1-2%
 - 10% can become chronic carriers

HBV/HIV



- Health Care Workers
 - Higher prevalence of HBV infection than general population
 - HIV infection has been minimal
- HBV vaccine is available
- No vaccine for HIV

TRANSMISSION



- HBV/HIV
 - Not transmitted through casual contact
- Non-dental setting
 - Sexual contact
 - Sharing needles or syringes
 - From infected mother to baby
 - Blood transfusion
 - Organ transplant

TRANSMISSION



- Dental setting
 - Needlestick or puncture wound
 - Blood (HBV/HIV) or saliva (not HIV) contact with mucous membrane, or non-intact skin
- HBV more concentrated in blood than HIV
 - Higher potential for transmission
- HBV from surfaces/equipment can cause infections.

OCCUPATIONAL EXPOSURE TASKS

- Dental setting
 - Performing dental procedures
 - Handling or pouring impressions
 - Taking radiographs
 - Cleaning and sterilizing instruments
 - Handling trash or waste

EXPOSURE CONTROL PLAN

- KEY ELEMENTS

- Identification of job classifications/tasks where there is exposure to potentially infected material
- Schedule of how/when provisions of standard will be implemented
- Need for Hepatitis B vaccination
- Post-exposure evaluation and follow-up

PROGRAM



- Communicate hazards
- Identify/control hazards
- Preventive measures
 - Hepatitis B vaccine
 - Universal precautions
 - Engineering controls
 - Safe work practices
 - Personal protective equipment
 - Housekeeping



IDENTIFY THE PERSON WITH AIDS

YOU CAN'T!!!!!!!!!!!!!!

EVERY PERSON IS A POTENTIAL
CARRIER OF INFECTIOUS
DISEASES.



UNIVERSAL PRECAUTIONS

- Treat all human blood and saliva as if infected with HBV/HIV
- Single most important measure to control transmission
- Blood and saliva are considered potentially infectious materials
 - Can cause contamination to items/surfaces

WORK PRACTICE CONTROLS



- Reduce likelihood of exposure by altering the manner in which task is performed
- Goal
 - Minimize splashing, spraying, spattering, and generating droplets.

PROPER TECHNIQUE FOR RECAPPING A NEEDLE.



WORK PRACTICE REQUIREMENTS

- Wash hands ASAP after skin contact with blood or other potentially infectious material, and after removing gloves or other personal protective equipment
- No recapping, bending or removing contaminated needles from syringes unless required by dental procedures
 - Use mechanical means (forceps, one-handed technique, needle recapping device)

WORK PRACTICE REQUIREMENTS

- No shearing/breaking of contaminated needles
- Discard disposable sharps (endo files, ortho wires, anesthetic/suture needles) in designated sharps container
 - Closable, puncture resistant, leakproof, colored red or labeled with biohazard sign
 - Easily accessible, maintained upright, not allowed to overfill



WORK PRACTICE REQUIREMENTS

- No eating, drinking, smoking, applying cosmetics or handling contact lenses in areas where there is occupational exposure
- No storage of food/drinks in refrigerators, cabinets, shelves or counter tops where potentially infectious material are present

Personal Protection

- Specialized clothing or equipment to protect from exposure to potentially infectious material
- Must not allow potentially infectious material to pass through clothing, skin or mucous membrane

Personal Protection Equipment



- Gloves
- Clinic jacket
- Lab coat
- Chin-length face shield
- Mask
- Eyewear (solid side shields)
- Goggles

Personal Protection

- Selection based upon quantity and type of exposure expected
- Based on degree of anticipated exposure and procedure performed
- Clinic jacket, lab coat, gown or other protective clothing and equipment must be removed ASAP when penetrated by potentially infectious material , and prior to leaving work area

GLOVES

- Anticipate contact with blood or saliva during treatment, when performing vascular access procedures, or when handling instruments, materials, and surfaces that are contaminated
- Should fit properly
- Must be removed upon completion of dental procedure
- Must be replaced if torn or punctured during procedure

WHAT IS WRONG
WITH THIS
PICTURE?



GLOVES



- May not be reused
- May not be washed or disinfected
- No petroleum-based hand lotions with latex gloves
- Grasp at wrist and strip off “inside-out”
- May be placed in regular waste container

UTILITY GLOVES

- Should fit properly
- Used for cleaning instruments, surfaces, handling laundry, or housekeeping
- After washing with soap, pull off by finger tips
- May be washed, autoclaved, or disinfected and reused as long as integrity is not compromised
- May be placed in regular waste container when no longer usable

MASKS



- Adjust so fits snugly
- Change frequently or if becomes wet or contaminated
- Remove when treatment is completed
- Remove by elastic or tie strings
- Do not touch mask
- Cannot be decontaminated
- May be placed in regular waste container

EYEWEAR/FACE SHIELD

- Wear when splash, spray, or spatter is anticipated
- Eyewear must have solid side shields
- Remove by headband or side arms
- Do not touch shield or lens area
- Wash with soap and water
- May be decontaminated and reused

PROTECTIVE CLOTHING

- Wear when splash, spray, or spatter is anticipated
- Remove immediately if penetrated by blood or potentially infectious materials
- Minimize contact with front surface
- May be placed in regular waste container, if disposable
- If reusable, place in marked laundry container

HOUSEKEEPING

- Work surfaces, equipment, and other reusable items must be decontaminated upon completion of procedure when contaminated with potentially infectious materials
- Barriers protecting surfaces/equipment must be replaced when contaminated or at end of the workshift

SPRAY-WIPE-
SPRAY



HOUSEKEEPING

- Reusable receptacles (bins, pails, cans)
 - Must be inspected/decontaminated on a regular basis and when visibly soiled
- Broken glass that may be contaminated
 - May be cleaned up with brush/tongs
 - Never picked up with hands, even if gloves are worn
- Contaminated equipment must be decontaminated prior to servicing or labeled as biohazard



WORK PRACTICE REQUIREMENTS

- Store, transport or ship blood or other potentially infectious materials in containers that are closed, prevent leakage, colored red or labeled with biohazard sign

BIOHAZARD LABEL

- Symbol accompanied by word *BIOHAZARD*
- Must be fluorescent orange or orange/red with lettering and symbols in contrasting colors
- Red or orange/red bags or containers may substitute for labels
- Decontaminated regulated waste does not need to be labeled or placed in red bags

EXAMPLES OF **INFECTIOUS WASTE**

- Burs, endo files
- scalpel blades
- suture needles
- hypodermic needles
- broken instruments
- anesthetic carpules
- teeth, human tissue
- bio-tests for sterilizers

EXAMPLES OF INFECTIOUS WASTE **(cont'd.)**

- The Great Gauze Controversy
- Gauze is considered infectious waste if blood:
 - spontaneously flows, oozes or drips from the carrier material
 - is released in liquid or semi-liquid state if compressed
 - falls off or is rubbed off in dry, caked form

EXAMPLES OF NON- INFECTIOUS WASTE

- Diapers
- facial tissues
- sanitary napkins
- absorbent materials containing very small amounts of blood or body fluids

EXPOSURE INCIDENT

- The integrity of the skin is broken by something which may be contaminated by blood or body fluids of another person
- Employer
 - Responsible for establishing procedure for evaluating exposure incident
 - Thorough assessment and confidentiality are critical

EXPOSURE INCIDENT

- Administer first aid
- Contact supervisor or OIC/NCOIC of Infection Control section
- Initiate referral to healthcare professional
- Begin program of medical evaluation and follow-up based on current recommendations from the Centers for Disease Control and Prevention

EXPOSURE INCIDENT

- Immediately report exposure incident to initiate timely follow-up process by healthcare professional
- Initiate prompt request for evaluation of source individual's HBV/HIV status
- Exposed individual must be directed to a healthcare professional

EXPOSURE INCIDENT

- Exposed individual
 - Baseline blood test to establish HIV/HBV status
 - Source individual's blood test should be made available
 - Informed of results of evaluation and potential need for further evaluation and or treatment
- Healthcare professional should provide written opinion to employer

TRAINING RECORDS

- Document each training session
 - Date of training
 - Content outline
 - Trainer's name and qualifications
 - Names and job titles of attendees
- Must be kept by the employer for 3 years

QUESTIONS ??

Do you feel en-light-ened?



REFERENCES

- *Occupational Exposure to Bloodborne Pathogens*, Title 29 CFR 1910.1030, Federal Register 56 (235): 64004-64182, December 6, 1991.
- OSHA Pamphlet 3129, *Controlling Occupational Exposure to Bloodborne Pathogens in Dentistry*